State GIS Program Vision, Goals, Objectives and Actions

Vision Statement:

Establish a national model for Statewide GIS programs by leading and coordinating the continued growth of the State of Hawaii's enterprise GIS that reflects advances in the evolving nature of GIS technology and provides a one-stop point of access to spatial databases for the purpose of improving overall efficiency and effectiveness in State government decision-making.

Goal #1:

> **Gain awareness, recognition and support of the State GIS program at all levels of State government.**

Objectives:

- o 1.1: Continue to build the user base and promote the use of GIS at the staff level to innovatively address and solve problems that require spatial analyses.

- o 1.2: Gain support among Department Directors and Administrators to positively communicate the value of GIS at the cabinet level.

- o 1.3: Continue to expand partnerships with other State agencies on projects of mutual interest

- o 1.4: Explore ways to strongly encourage departments to inform and consult with State GIS Program before embarking on GIS data development or acquisition and/or GIS application development activities in order to improve coordination and reduce duplicative efforts

- o 1.5: Establish a GIS job series, similar to the job series within each county, with the assistance of the Department of Human Resources Development

- o 1.6: Work with University of Hawaii Geography, Planning, and/or SOEST Programs to promote GIS and encourage greater integration of GIS into their curriculums.

Actions:

- ❖ 1.1: Continue to assist OP Programs, Governor's Office, and other State Agencies with Land Use, Environmental and State Policy Issues

- ❖ 1.2: Convert Exempt Planning and Policy Analyst Position to Civil Service

❖ 1.3: Develop and promote "Best Practices for Data Sharing" among State Agencies

❖ 1.4: Help coordinate and participate in 2006 PacGeo/Hawaii Congress of Planning Officials Conference

❖ 1.5: Participate in and serve on Board of Directors of Hawaii Geographic Information Coordinating Council (HIGICC)

❖ 1.6: Lead Hawaii State Government GIS Users Group

❖ 1.7: Explore possibility of acquiring a GIS software site Enterprise License Agreement (ELA) for all State agency users

❖ 1.8: Give presentations and/or demonstrations on the State GIS to interested State agencies

❖ 1.9: Provide for State GIS Program staff training and professional development opportunities, including annual ESRI International User Conference attendance

❖ 1.10: Initiate discussions with UH Departments of Geography, Planning and SOEST regarding partnerships, internships, and curriculum development

❖ 1.11: Follow up on GIS Job Series Request submitted to DBEDT and initiate discussions with DHRD on Job Series

❖ 1.12: Include additional GIS Analyst position(s) in the Biennial Budget Request

Costs:

❑ 1.8: Site license to be negotiated (est. $240,000 annually, which, taking expected growth into consideration, is comparable to collective costs that would be paid by various State agencies – therefore, net cost ~ 0)

❑ 1.9: Associated costs of conference attendance and training, including registration fees and travel as necessary - TBD

❑ 1.12: Additional GIS Position – est. $40,000

Goal #2:

➢ **Improve coordination of GIS activities in State government**

Objectives:

- o 2.1: Reduce or eliminate duplication of effort and increase efficiency in data acquisition and development and in application development through improved communication and coordination

Actions:

- ❖ Increase frequency of meetings and re-invigorate State GIS User Group

- ❖ Draft Governor's letter or Executive Order encouraging or directing State agencies to consult with the State GIS Program before initiating GIS projects

Costs:

- ❑ N/A

Goal #3:

➢ **Build a comprehensive library of digital spatial data of the best available (highest quality) Hawaii-related information.**

Objectives:

- o 3.1: Continue to coordinate and exchange data resources with Hawaii GIS users both within and outside of State government.

- o 3.2: Continue to seek sources of funding, both State and non-State sources, particularly grant funding, to help develop new data sets.

- o 3.3: Continue to build the State GIS web site to facilitate distribution of data.

Actions:

- ❖ 3.1: Complete statewide acquisition of Quickbird DOQQ data

- ❖ 3.2: Acquire additional LiDAR and/or other high-quality elevation data

- ❖ 3.3: Seek funding to acquire or develop accurate address range database, or if cost-effective and sufficiently accurate, subscribe to address range web service

❖ 3.4: Enter into partnership with Hawaii Air National Guard to exchange imagery for EagleVision V satellite data

❖ 3.5: Implement a regular update and maintenance plan for all State GIS data, particularly imagery

❖ 3.6: Participate in collaborative effort to scan and rectify historical data including aerial photography and maps

❖ 3.7: Seek funding to develop an accurate ceded lands database

Costs:

❑ 3.1: Acquisition of remaining DOQQs: est. $650/DOQQ ($150,000 - $200,000 total)

❑ 3.2: LiDAR – TBD

❑ 3.3: Address Range Database – TBD – est. $100,000 +

❑ 3.4: EagleVision V imagery – N/A

❑ 3.5: Regular Update and Maintenance of State GIS Data - TBD

❑ 3.7: Ceded Lands Database – TBD – est. $1,000,000 +

Goal #4:

➢ **Continue to provide support to State agencies as needed**

Objectives:

o 4.1: Assist agencies seeking technical expertise with their spatial analysis and mapping needs

Actions/Potential Projects and Partners:

❖ 4.1: Affordable Housing – GOV/HCDCH/DLNR/Counties
❖ 4.2: 2010 Redistricting – OE/Counties
❖ 4.3: Important Agricultural Lands/Rural Lands – DOA/Counties
❖ 4.4: Juvenile Justice Information System – AG
❖ 4.5: Enterprise Zone Mapping – CBED, DBEDT
❖ 4.6: Demographic Mapping – READ, DBEDT
❖ 4.7: Agricultural Leased Lands Transfer – DLNR/DOA
❖ 4.8: Conservation District Sub-zone Updates – DLNR/LUC

- ❖ 4.9: Upgrading of Land Use District Boundaries to match TMKs – LUC
- ❖ 4.10: Brownfields Redevelopment Program – DOH/DBEDT
- ❖ 4.11: State Harbors Analysis and Improvements – GOV/DOT
- ❖ 4.12: CZM Performance Measures System Development – CZM/Counties
- ❖ 4.13: Historical Agricultural Mapping - DOA
- ❖ 4.14: Assist various State agencies with creation of new datasets – all agencies

Goal #5:

- ➢ **Increase State GIS Ease of Use**

Objectives:

- o 5.1: Seek partnerships and/or funding to create simple, easy-to-use, web-accessible GIS applications for use by casual State agency users and the public (e.g., State Civil Defense, CZM Hazard Mapping Application, Enterprise Zone Locator, SMA Locator, State Land Use District Locator, Demographic Mapper, Parcel Mapper, General Mapping Application, etc.)

- o 5.2: Explore possibility of implementing web services to enhance ease-of-use

- o 5.3: Establish an in-house training program for State employees wishing to incorporate GIS technology to improve their job performance and to enhance their existing knowledge, skills and abilities.

Actions:

- ❖ 5.1: Prepare budget request for application and web services development for submission to 2007 legislature.

- ❖ 5.2: Explore various training options, such as developing an in-house program, partnering with other agencies such as NOAA to provide training, acquisition of State GIS software site license to include training opportunities, and/or contracting with consultant to provide training to State GIS Users.

Costs:

- ❑ 5.1: Application development – TBD – depending on number and complexity of applications – could vary between $10,000 to $50,000 for relatively simple applications

- ❑ 5.2: Training – TBD - Cost would be determined by solution chosen (e.g., OP and/or ICSD staff, on-line training, contracted training, ELA negotiations as appropriate, etc.)

Goal #6:

➢ **Assist State Civil Defense (SCD) with the establishment of 24/7 availability of the system with a redundant server at SCD for emergency situations.**

Objectives:

- o 6.1: Seek funding, particularly from the Department of Homeland Security to support such efforts.

- o 6.2: Coordinate with State Civil Defense and the Information and Communication Services Division to deal with compatibility and security issues.

- o 6.3: Coordinate with County GIS and Emergency personnel to ensure that State and County emergency GIS infrastructure and applications are compatible

Actions:

- ❖ 6.1: Monitor and apply for possible homeland security grants

- ❖ 6.2: Seek funding for customized application development for State homeland security scenarios

- ❖ 6.3: Encourage and assist SCD with the development of in-house GIS expertise, using either existing or new SCD staff positions

Costs:

- ❑ 6.2: Customized application development - TBD – est. $70,000 per application

- ❑ 6.3: In-house GIS staff for SCD – TBD – if new staff, then est. $40,000

Goal #7:

➢ **Increase State GIS System Performance**

Objectives:

- o 7.1: Increase the number of State GIS Users who are able to efficiently access the State GIS Database directly, rather than having to make copies of the data locally.

Actions:

- ❖ 7.1: With ICSD, conduct a survey of State GIS Users' network connections and make recommendations regarding upgrade of both users' systems and State GIS file server.

- ❖ 7.2: Seek funding to hire consultant to analyze and modernize State GIS hardware and network infrastructure and database design structure to take advantage of existing standards and technology, and to convert the existing State GIS data into the new design structure.

Costs:

- ❑ 7.1: Survey – Staff time

- ❑ 7.2: Hardware and network infrastructure analysis and design – TBD – est. $50,000; Hardware and network upgrades – TBD; GIS database design and conversion – TBD – est. $50,000 - $100,000